

Communication in a Post-Disaster Community: The Struggle to Access Social Capital

DONALD MATHESON¹

ANNALEE JONES

University of Canterbury, New Zealand

This article conceptualizes social capital in communicative terms to describe the social resources available to members of one suburb in Christchurch, New Zealand, as they seek to recover from a natural disaster. It notes how communicative social capital was distributed unequally and frequently experienced as in deficit or as inaccessible. The idea of community was a powerful focal point for residents, but there was little evidence that social connectedness at this level provided the resources for civic engagement more generally. The idea of the city that arose out of people's shared ideals and investment in collective civic institutions appeared to be still broken three years on from the initial disaster.

Keywords: social capital, communicative social capital, disaster recovery, Christchurch earthquakes

Introduction

This article has two aims. One is to understand how various forms of communication have helped to build social capital in a city three years on from a series of devastating earthquakes. The second is a theoretical aim: to contribute to the scholarship on social capital by specifying the communication dimensions of social capital.

The research was prompted by a survey in April 2013 by the Christchurch Earthquake Recovery Agency (CERA), the government body set up to lead recovery efforts after the city and its hinterland were hit by two major earthquakes in 2010 and 2011. CERA found that, in the third year on from the second, larger, earthquake, many of the concerns that residents had about their own well-being were not personal matters, but were related to interactions with others in the city. Dealing with insurers, relocation, repairs, and the loss of recreational and cultural facilities were top of mind for people when they described what was not going well for them (Christchurch Earthquake Recovery Agency/Nielsen, 2013). As immediate psychosocial needs—securing roofs over their heads, personal relationships, and personal safety—receded

Donald Matheson: donald.matheson@canterbury.ac.nz

Annalee Jones: annaleekimjones@gmail.com

Date submitted: 2015-01-21

¹ The research was conducted with the help of a University of Canterbury Summer Studentship grant.

(in the survey, people tended to report those things as among the good things in their lives), the ability to interact successfully with authorities, businesses, and other people in the city became prominent. Moreover, these were not secondary needs to be fulfilled once personal well-being was addressed, but central to their sense of recovery. This article addresses that between-people dimension of the recovery, drawing on ideas of social capital and, in particular, the social capital accrued through communicative activities such as gaining knowledge about the recovery, taking part in discussions about what is happening in the city, and creating shared cultural meaning about communities.

As we discuss shortly, contemporary sociologists of disaster see recovery in similar terms. Much of that literature uses the notion of social capital to conceptualize what is at stake in putting a city back together again. We have theorized social capital here in communicative terms, and we use that concept to capture some of the relational dimension when people try to achieve things post-quake—whether that is sharing knowledge, contesting official decision making, or other processes of making sense. We describe the rich array of communicative interactions among members of one Christchurch suburb and the importance of these interactions to people's ability to begin to put their lives back in order after the disaster. But we also note how communicative capital was distributed unequally and how it was frequently experienced as in deficit or as inaccessible. The idea of community was a powerful focal point for people's thinking in this context, but we did not see evidence that the social connectedness at this level provided the resources for civic engagement more generally. Instead it existed in some tension with public life. The idea of the city that arose out of people's shared ideals and investment in collective civic institutions appeared to be still broken three years on from the initial disaster.

Background

Two major earthquakes affected Christchurch and its hinterland. The first, on September 4, 2010, led to property damage across the wider region. The second, on February 22, 2011, killed 185 people and damaged the central city so badly that 70% of buildings were later demolished (Booker, 2012). The city's eastern suburbs were also badly hit, with some areas since abandoned. It is widely described as one of the most expensive natural disasters in modern history, and understanding the scale of the damage to the city's geology and infrastructure, and the very large amounts of money at stake, is central to understanding the problems of recovery. Progress had been slow at the time of our fieldwork. Although smaller insurance claims were mostly settled, about half of residential building claims were not yet fully resolved with the government-run Earthquake Commission (Steeman, 2014), and the rate was estimated to be similar among commercial insurers, though figures were disputed (Insurance Council of New Zealand, 2014). The demolition phase was just beginning to be replaced by the rebuild phase, and huge uncertainty remained in many areas. Arguments continued about the viability of several suburbs, including the one we studied, New Brighton. An engineering report released to the public in January 2014 predicted parts of the suburb would need to be abandoned in 100 years because of the sinking of land as a result of the disaster combined with predicted rising sea levels (Tonkin & Taylor, 2013).

The rebuild cost was estimated by the government at \$40 billion (English, 2013) and was for that reason alone highly politicized. Much was at stake for government, insurers, businesses, and citizens; for many businesses and homeowners, their financial survival was uncertain. In addition, CERA, the

Earthquake Commission, insurance companies, and the (former) city council had been widely criticized for their management of the rebuild. One advocacy organization claimed most affected residents rated their insurers' treatment of them as "awful" (InsuranceWatch, 2014).

Literature Review

The scholarly literature on how communities recover from disasters is in a revisionist phase (see Lindell, 2013), in particular by abandoning former assumptions about the centrality of infrastructural recovery, central planning, or the return to some prior stable state. In much of the emerging literature, new importance is given to social processes and the position of individuals and communities within those processes. Recovery happens as much at the interstices, in social reconnection and in shared action, as at the material level. Tierney and Oliver-Smith (2012, p. 124) write that "some of the most crucial and interesting research challenges concern the interfaces between infrastructure, institutions, economic activity and culture." Recovery is also a symbolic matter—that is, a matter of people's self-perceptions and their ability to pull in the same direction. The boundaries between personal recovery and the rebuild of the urban fabric are now regarded as more diffuse—the pile of rubble at the street corner is as concerning for its impact on residents' sense of recovering as for its impact on the efficiency of the transport system (Jordan & Javernick-Will, 2013). As Tierney and Oliver-Smith (2012) point out, reconstruction involves a long and painful process not just of the material community but of the community trying to make itself whole again, "to re-knit the cultural fabric in some coherent fashion" (p. 137).

As part of this greater emphasis upon recovery as a social process, civic-led, bottom-up, or community-focused recovery efforts have been given new importance. Several scholars note that the collapse of the established social order and the inadequacy of institutional structures immediately after disasters rarely lead to social chaos. Drabek and McEntire (2003), for example, study how emergent forms of independent and decentralized social structure take over (see also Auf der Heide, 1989; Stallings & Quarantelli, 1985). Chamlee-Wright (2010) argues similarly that after Hurricane Katrina hit the Gulf coast of the United States, the coordination and cooperation of responses among those closely involved in communities far exceeded any planned efforts. These forms of "social learning," as Chamlee-Wright termed them, were formed in the coming together of many individuals' uses of the cultural resources embedded in their relationships, their shared sense of identity, and community narratives (Chamlee-Wright, 2010, p. 20).

The term *social capital* is widely used to study the networks that people can deploy to do these things postdisaster. Social capital, which can be defined in broad terms as "those aspects of social structure . . . that can be used by the actors to realize their interests" (Coleman 1990; cited in Morgan & Sørensen, 1999, p. 305), is often further specified and operationalized to refer to how individuals and groups develop relationships and networks that provide access to social resources and in particular to the durability and intensity of those networks, the levels of trust and mutuality that sustain the networks, and the norms shared across the networks about working for the common good (Bourdieu, 1986; Chamlee-Wright & Storr, 2011; Putnam, 2000). In the context of the earthquakes that affected Christchurch, McClean, Oughton, Ellis, Wakelin, and Rubin (2012) use the term in this way to describe the value of social capital built up within various community organizations, whether churches, farmers' networks, or

the cell phone-enabled Student Volunteer Army network, in allowing them to mobilize responses rapidly. Looking at longer-term processes, scholars such as Aldrich (2010) have found that the pace of recovery from disasters, whether in Japan, Sri Lanka, or the United States, is linked to the richness of people's social connections. Individual well-being is strongly linked to social capital, as people living in areas with higher social capital are better able to overcome obstacles to come together in collective action (see also Chandra et al., 2011). Aldrich (2012, p. 4) goes further to link that well-being to a self-perception of being part of a greater collective: "recovery for many survivors involves an associational, mental transition from victim to citizen . . . most survivors see social connections and community as critical for their recovery" (see also Tatsuki et al., 2005). Social capital points to the importance of people's past stable relationships in dealing with the instability of a disaster, although it also emphasizes the responsiveness and adaptability of those with access to social capital.

Recent empirical research has refined ideas of how different kinds of network provide access to different kinds of social capital, noting that the links from individuals to those of different socioeconomic status, age, and ethnicity operate in quite a different way to the close bonds of community or connections between those of similar socioeconomic status. Woolcock (2000) places particular emphasis on this "linking" capital, arguing that certain kinds of links within and across communities are of vital importance. Storr and Haeffele-Balch (2012) argue for a focus on community organizations rather than on community per se. They perceive organizations with the capacity to build "bridging" capital between groups of people as central to communication flow and to shared understanding within a community about the recovery process, particularly when romanticized notions of homogeneous community are displaced by analysis of often quite complex urban structures (Storr & Haeffele-Balch, 2012). They draw from the case of Broadmoor in New Orleans, where a neighborhood watch group mobilized a "robust civil society response" (p. 305) to a demand by authorities that at least 50% of residents commit to returning home after the disaster before funding would be released, which resulted in the community coming together to rebuild itself. The fact that this community was "able to recover from Katrina more quickly and completely than other communities that seemed better positioned to rebound" (Storr & Haeffele-Balch, 2012, p. 298) demonstrates the importance of organizations in accessing social capital. The specificity of different communities, and in particular the various ways they are linked together and to the broader society, is emphasized in such studies. As Maras (2003) argues, a corollary of this approach is to remember how social capital links to structures of power. At moments of crisis, competition for resources as well as recognition of the need for mutual support are likely to occur. In this research, we avoid ascribing a predetermined value to community or imagining it as a set of self-evidently good and stable connections; rather, we study it in its specificity and variability, including barriers to accessing or deploying social capital.

This literature on the resources for recovery within communities overlaps with literature on the use of networked and social media after disasters by community members. Individuals forming online networks emerge not only as co-organizers of disaster management (Pechta, Brandenburg, & Seeger, 2010) but in some accounts as "a powerful, self-organizing and collectively intelligent force" (Palen et al., 2010). Some caution is needed with such claims. Matheson (2014) notes that in the immediate aftermath of the 2011 Christchurch earthquake, the loss of electricity and the overloading of cell phone networks meant that networked media tended to play a greater role for those outside the disaster area than for

those within it. Even in the longer term, Procopio and Procopio (2007) find that place-based community and the social capital available through its networks retained their importance for disrupted communities in New Orleans, with networked media being used to sustain rather than replace those relations. It makes more sense to theorize technologies and the social capital embedded in communities as mutually constitutive (Williams & Durrance, 2008). So although networked media certainly produce new forms of network, which are likely to increase the capacity for people to develop relationships, study of the longer-term recovery needs to remain focused on the interactions occurring in all people's networks, face-to-face and mediated.

As in many areas of social science, structural and institutional perspectives on disaster recovery have been joined, as discussed above, by approaches that emphasize individual self-perception and dynamic forms of collective action. *Social capital* is a term flexible enough to study both agency and structure, and its leading contemporary theorists often imagine it as not something people possess but as "at the juncture between people and their relations" (Lin & Erickson, 2008). It is indeed a term whose great value is in describing what people achieve through their relationships. We are cautious of the risks in reducing it to a measure of the number or scale of those relationships, but seek to understand it as it arises between people. Rojas, Shah, and Friedland (2011) capture something of the nature of what is described by social capital by foregrounding its communicative dimension. They argue that there is a synergistic relationship between social ties and communication, which they believe "results from the information and shared meaning that flows through social ties and is constructed by them" (p. 690). That is, social ties connect people only when they are filled with communicative practices.

There is a risk that these ties are conceived of in mechanistic terms, as channels opened up by mutual trust through which information flows. Communication practices are of course much more complex, characterized by norms, genres, and competencies. Rui, Covert, Stefanone, and Mukherjee (2014) call for study of the multiple layers of communication that people use to maintain their relationships, particularly their stronger ties, to uncover the specific mechanisms by which people access social capital. Communication is also characterized by power imbalances in who can speak and contests over the symbolic power produced in communication. As Maras (2003) notes, a close analysis of the communication and communication networks through which social capital is produced invites the use of critical theories of society that can explore the interaction of knowledge and power. Any simple equation of social ties, homogeneous community, and civic participation becomes less tenable when attention is paid to the details of what is said, who speaks, the symbolic resources that are drawn upon, and the different understandings that people have of the same content. Close attention to communication has the added benefit of allowing the phenomenal and in-between nature of social capital, as Lin and Erickson (2008) theorize it, to be examined. Trust, for example, can be studied in relation to some of the specific communicative interactions through which people make judgments about trusting others. In studying the social capital of residents in a postdisaster setting as a matter of communicative practices, this article, then, seeks to make a theoretical contribution as well about the value of studying social capital in communicative terms.

Approach

We studied the communication networks and access to knowledge about recovery of 10 people in the beachside suburb of New Brighton, three years on from the larger earthquake. A snowball sampling technique was used, starting with three community leaders and reaching into the suburb from there. This approach put us in contact with a range of individuals with different levels of social contact. To preserve people's anonymity, the analysis reports people's responses thematically rather than reproducing their narratives.

New Brighton, with a population then of 11,000 people, lies on the eastern edge of the city of Christchurch (population 350,000), bordered on one side by sand dunes and on the other by a swampy estuary. We interviewed residents here for three main reasons. First, this area was badly hit: Perhaps 4% of its population left after the earthquakes; its housing, recreational facilities, infrastructure (including bridges linking the suburb to the rest of the city) were damaged; and the land itself rose up to half a meter (Tonkin & Taylor, 2013). People here were very much affected—indeed, our interviewees talked of people they knew, three years after the event, without working toilets and others still living in their garage. New Brighton people emerge in one post-quake survey as the unhappiest in the country's most unhappy city (O'Callaghan, 2013). Second, New Brighton characterizes the eastern suburbs of the city, the poorer and, as the government later acknowledged, somewhat neglected end of the city immediately after the quake, despite the severe damage to land and homes there (Donnell, 2011). In the 2006 census, 46.8% of New Brighton residents were employed full-time, compared to an average in the city of 72% (Statistics New Zealand, n.d.). Although one community within the suburb is wealthier and more educated than the median city income, the rest of the suburb has more people earning low incomes, out of work, or without formal school qualifications than the city overall. Part of the suburb, Rawhiti, has a high proportion of people over age 65 (Christchurch City Council, 2011; Statistics New Zealand, n.d.). Its shopping area is in long decline from its 1970s heyday as Christchurch's weekend shopping destination. The challenges for the city's east contrast with growth elsewhere: The population of the satellite town of Lincoln on the city's western fringe, for example, grew 40% after the earthquakes, and its median income leaped from below the levels in New Brighton to \$24,500, above the city median of \$23,400 per person (Statistics New Zealand, n.d.), as wealthier individuals rebuilt far from the damage. Third, and in contrast, New Brighton scores highly on measures of social capital. Christchurch City Council (2011) counted 116 organizations in the suburb (18 community groups, 40 sports organizations, 31 recreation or leisure groups, 12 faith-based organizations, 4 residents' groups, and 11 meeting venues). In a report after the earthquakes, it rated the community at 4 or 5 out of 5 for resilience, connectedness, volunteering, participation, and resilience. It is also a mobilized community: Some of these organizations were highly active in community building and lobbying in the period studied. The local business association, for example, hosted a "bare bum" protest on the beach a year before our fieldwork (Gates, 2012) to protest against city council neglect of the suburb. A radar chart produced by city council analysts (see Figure 1) illustrates well this strong community situated in a challenging postdisaster environment.

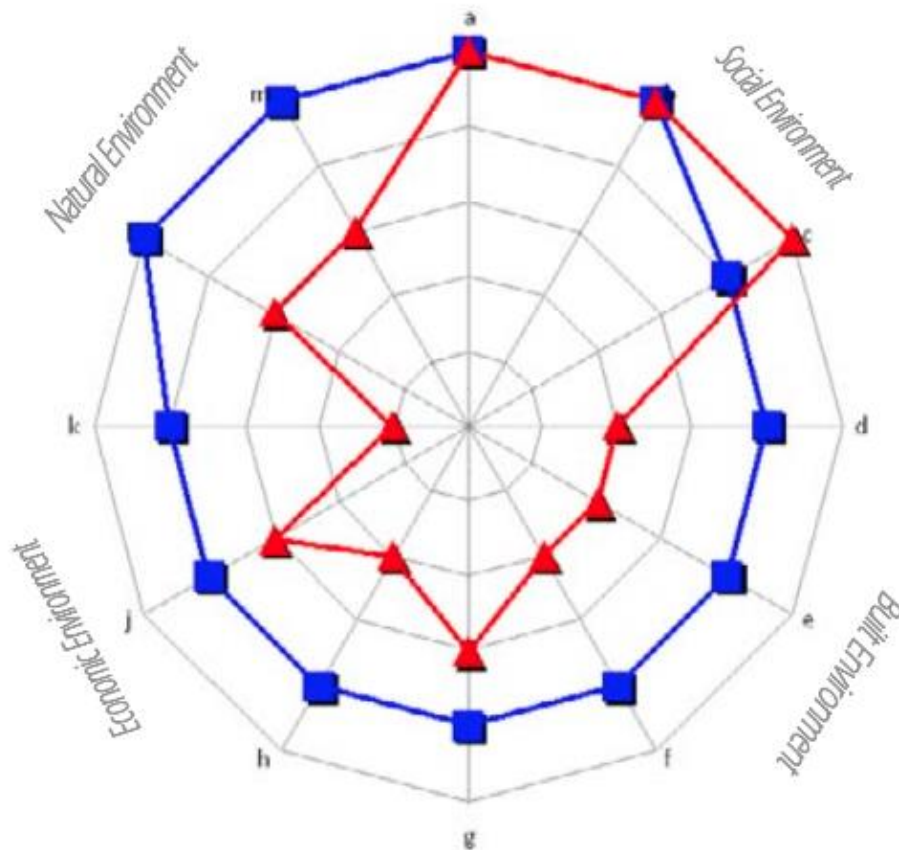


Figure 1. Pre- and post-earthquake analysis. The postquake environment is shown in red. Source: Christchurch City Council (2011).

The fieldwork was organized around a central question: What does the high social capital of people in New Brighton achieve when examined as ties formed through communication in a time of crisis? Interviews were semistructured, based on a set of 12 questions about the experiences of each individual interviewed in accessing the information he or she needed to meet her or his needs three years on from the earthquakes. Interviews were conducted between January and July 2013. Each lasted between 25 and 45 minutes.

Findings

Networks and Mutual Support

Residents' local connections and wider networks were important in their sense of well-being three years on from the quakes, echoing the findings in previous research on the importance of "bonding" social capital and on emergent forms of organization. A common thread in the responses was the way the earthquakes reminded people of their connections to those around them and of the mutual support gained from that. People spoke of "that connection that people found again" as a result of the disaster (A). Three years on, that experience remained valued. Although some had seen neighbors move away in the years since the quakes, local connections had not diminished in importance, although perhaps in intensity. These were not only valued but seen by many as a major way of finding things out and getting things done. One respondent, for example, talked of the advice he received on his house from a builder who attended the same church, found support through his close-knit family, took advantage of group counseling and other support from his employer, and helped out in the community through his church (B). A separate but related point emerges. Ideas of mutual responsibility and community had become major ways in which people organized their thoughts about recovery, partly because of stories that had percolated down to them of successful postdisaster recovery in parts of Canberra or New Orleans. Community-led recovery was, said one, more effective and authentic (C). Community leaders mentioned feeling validated and clear about their role as a result:

It's a major part of people's healing too, to have a connection in their community. I think we all, one big thing that came out of the quakes was how important communities are. [The authorities] realize that when they made all that temporary building in different places like the caravans that never got used . . . that people didn't, even if their homes were wrecked, they didn't want to leave their community. They wanted to stay where they felt safe. (A)

The social capital that was latent between neighbors and that was strengthened by the experience of common adversity and mutual support had, three years on, solidified into an important recovery narrative about the value of these connections. When talking about the present, several people began with stories from the immediate postdisaster period of nightly barbecues and improvised neighborhood toilets. This should not be understated. These stories can be read as one of the ways the urban cultural fabric is being slowly repaired, focused on a set of recovery values in which the local bonds of community take center stage.

In addition to the capital accessed through these bonds, capital of other kinds was important. The three community leaders we interviewed were clearly able to achieve what they had in the suburb because of the links they had outside the community, particularly to powerful people. One, for example, used her contacts, confidence, and skills to overcome barriers to the launch of a community policing initiative (C). Against a backdrop of weak confidence from local retailers in the police, she was able to coordinate a shift in police strategy as well as access to sensitive police intelligence so as to better target local priorities. That shift happened because she was able to bring in a senior police officer to rethink normal police

procedure. Some of these linkages to power had been reinforced through being used since the quakes, such as those between a local church and the (then) local member of parliament, now the city's mayor:

Time and trauma form good relationships, and we had quite a traumatic time together, and lots of fun as well. So they often will get constituents turn up to the office, it's a bit perplexing, you know, "How can we help you?" so they'll refer them to us to get volunteers around to clean up a section or move furniture. (S)

As Bourdieu's (1986) economic metaphor of social capital predicts, access to capital fosters the accrual of more capital, so that these empowered, busy individuals became ever more heavily invested in such work. In a disrupted city, these well-connected individuals with high community capital became important intermediaries.

The same is true of the links these leaders had with leaders of other community organizations; such links were prominent in their descriptions of how they got things done and were valued as means of sharing knowledge, accessing money, and achieving collective action. One described a rich network of civil society groups in which her organization was deeply integrated. Because of her organization's reputation, people from other organizations visited her workplace, offered it money, and engaged in joint projects (C). In turn, those links were strengthened. In fact, those horizontal linkages had not only become valued but explicitly fostered by some of the respondents, with the goal of further strengthening community-level recovery. A key initiative in the suburb was a community network forum where organizers could pool knowledge, links, and claims to represent the community.

The community's resilience comes from those relationships being built between agencies rather than being, "I'm looking after this, and that's my business; you're not a part of it." So there had been a bit of that before, that happening in Brighton, you know a lot of community groups, but not a lot of working together. . . . So we've set up and provided this platform for people and groups to start working together. (C)

Social capital emerges, then, not only as a useful way of understanding how certain individuals in New Brighton were able to share knowledge and develop the support that would allow people in the suburb to recover from the earthquakes, but as a top-of-mind concept that readily made sense to those we interviewed as a way of thinking about recovery. In particular, as Chamlee-Wright (2010) found in New Orleans, we heard people valuing the sharing of social and symbolic resources for recovery rather than more individualized pursuit of social capital. They knew already the lessons from other cities (Aldrich, 2010) that recovery depended on fostering both local and wider links.

Blockages

It was also apparent, however, that these forms of capital were unevenly distributed. We identified three distinct tiers of connectedness as well as one individual who did not fit any tier. The three leaders had high levels of community legitimacy and high levels of contact with other groups in the suburb and others in the city. Below them four of our interviewees had access to knowledge about the rebuild of

the city and opportunities to take part in the community largely through community activities facilitated by those leaders and by community groups. One, for example, talked of his church being his community and the place he found out about how to contribute to New Brighton and the city (B). Another knew of plans for revitalizing the suburb from talking with others in one of the larger community organizations in New Brighton (D). Below these people were residents who were more individualized and sometimes isolated in their communication, with fewer connections beyond the close bonds of family and work. One interviewee (E) stood out as highly informed through his own efforts and highly public in the way he shared information with others. His communicative interaction began from his sense of the rights of individuals in a liberal society more than from a sense of community codependence. The unevenness leads us to regard social capital after the disaster as valued partly because it was scarce. Moreover, while connections were often spoken of as being on behalf of the community, this community resource was not available uniformly but concentrated in some people. A critical dimension—that is, one concerned with power—was clearly needed in our social capital analysis.

Linking capital in particular emerged from the interviews as in short supply. In fact, we could flip the term to instead talk about inaccessibility—that is, the absence of the communicative resources that could link people in New Brighton to the city more generally. Many saw the Earthquake Commission, CERA, and the city council as very difficult to communicate with. Nearly all paused when mentioning these organizations, with one of the most well connected musing that CERA was “a strange kind of foreign body over there” (C). The complexity, uncertainties, and risks of rebuilding the city played a role here—one called Christchurch’s problems “massive” and beyond the conceptual resources she had (A). She instead focused on the community and on people-to-people connections through which she got things done. But for others the problem was of the failure of public organizations to communicate sincerely or to speak to local realities—“they speak another language,” one of the less connected individuals said (F). “They hold meetings among themselves but not with people who own the land” (E).

The inaccessibility of these sources of power was directly linked to a weak trust relation with those handling insurance and rebuild matters. One person made this explicit: “They could communicate far better than they do. They could stop telling lies to start with” (D). Many felt not trusted by insurance assessors about what damage to their house was earthquake damage and what was not, and in turn they felt they could not trust insurance company contractors. One talked of the many little ways in which the contractors showed rudeness, lack of care, and lack of respect (G). She also felt tricked by a contractor into signing off work she was not happy with. Some had experienced much worse than that. One person perceived systematic and deliberate deceit in the provision of information by engineers and official agencies to householders whose land had sunk as a result of the earthquakes and who were suffering as a result (E). He linked this, as some commentators have done (Hayward, 2012), to a collapse of democratic institutions in the city, so that people could no longer trust those in power to be acting on their behalf.

To an extent, our interviewees were drawing on widely shared discourses in the city after the disaster, which were amplified by news media that became increasingly critical of the government and insurance industry (Scanlon, 2014). Those discourses helped them to make sense of and validated their difficulties. But there was a fragility and thinness to people’s sense of knowing what they needed to know to recover or rebuild from the disaster. Only one person spoke in terms of a lot of information being

available from authorities, such as insurance newsletters, land stability reports available online, and heavy coverage in the local newspaper. Most felt much less informed by this information or perceived barriers to accessing useful or trustworthy information. One person, who had no earthquake damage to her property, said she imagined she could find out more information, but thought leaflets and media reports were "pretty basic" and told little about what was happening to key infrastructure (such as the yearlong closure of the main bridge into the area), although she conceded she could probably find out more online (D). Others spoke in terms that suggested they were individualized and disempowered by official sources of information; they had "little bits of information" about their own house and knew how to find out more but had little connection to wider issues of the fate of the suburb and of the city. One said the considerable energy it would take to connect herself to the issues of the rebuild was energy she did not have. "At some point you actually have to give up or you go mad" (G). As an individual she had neither the connections nor the money. Another spoke of the official "blabber," which "was not actually making any sense to me. You know when people are talking in their language, those people like myself haven't got a clue really what they're talking about" (F).

We also heard a strong collective narrative of exclusion. Residents spoke often of being "isolated" and of the suburb being forgotten or left behind. "We have no say, there's no one that listens," said the most politicized resident (E). Another put it more softly; he thought he should be helping the city recover, but "it's over there and I'm here, my home is in New Brighton" (B). There was a shared social geography here in the talk constructing the city as a distant place. "I hardly ever go into town now," was a sentiment expressed repeatedly. As Chamlee-Wright (2010) noted in New Orleans, a sense of shared direction and experience has the potential to help people to recover from disaster. We heard some of that here—a community garden was thriving because "people are on the same wavelength" in terms of values about growing their own food and the symbolism in this regrowth against a backdrop of residents and business owners still waiting for government and insurance decisions on their homes and infrastructure (A). But the narrative of exclusion was much more common. Residents not only knew that they had limited knowledge about the future of their suburb and of the city—some emphasizing access to data about the financial value of their property, others when they would get repairs, whether they should renew leases on business premises, or whether community facilities would be rebuilt—but that the uncertainty was experienced by others. A conclusion was widely shared: "I don't see New Brighton moving forward" (D).

People's self-understanding of not being well linked into the forms of knowledge that would benefit them and their community has many dimensions, including understanding of bureaucratic processes, time, energy, and access to those with understanding. Uncertainty about when and where the city would rebuild and who would benefit also looms large—as it did in the city overall, with 40% of respondents to CERA's 2014 well-being survey stating a lack of confidence that "the decisions being made by the agencies involved in the recovery are in the best interests of greater Christchurch" (Canterbury Earthquake Recovery Agency/Nielsen, 2014). Overall, however, two communicative dimensions of the flow of social capital seemed to be impeded. First, as noted above, trust was weak, including trust that residents' interests were being taken into account, meaning that the connection to those in power was of low quality. Second, people's experiences gathered together into a sense-making model that they were not being heard but were instead cut off from participation in decision making about their own lives and

their community. "I think a lot of things are done before they're even discussed," one summed up the decisions to demolish buildings. "It must make people think, why bother" (D).

Public Media

It may have been because of the way we framed our questions, but residents placed little emphasis on public channels of communication as a way of becoming informed or getting things done. Only one interviewee spoke of getting a lot of information from authorities through his letterbox and through the news media (B). He felt well informed and had trust in these surveillance-level media that address people as a general public, although he shared a general sense of not knowing how Christchurch would look in the medium term. The media most mentioned in interviews were the local (not the city) newspaper, in which local voices, whom the respondents recognized, were heard fighting on behalf of the community. Community newsletters also played a role in their knowledge network, particularly in the days immediately after the major earthquake, when other channels of communication were impaired. Although we read the responses as consonant with concerns elsewhere in the city, which news media reflected, the residents themselves did not express a feeling of being part of a public mood or having shared experiences. Perhaps this was related to the low-trust environment beyond local connections, or perhaps, as Nakagawa and Shaw (2004) note, to the way news media contribute to horizontal networks through which respondents can feel connected to others who are disempowered in society rather than directly to building connections to those with power to get things done. In fact, they tended to talk about news reports on the postquake disputes over insurance and planning as about other people and not really about them.

One person had contributed to a Facebook group of people whose land had been labeled at high risk (given the code TC3), which was set up to share information because official channels were not regarded as credible (E). Here he felt he could share and receive information that was trustworthy, suggesting that professional media felt to him to be too closely aligned with the authorities. Social media are regarded by some observers as key tools in people's self-organization after a disaster (Palen et al., 2010) and as fostering the building of mutually beneficial action in social networks. In particular they help form the dense networks associated with higher civic engagement (Putnam, 2000). But a deficit model is more useful here—the Facebook group provided this resident with the best information possible, given his sense that the state was lying to people.

Discussion

As the city council's analysis revealed (see Figure 1), this was a community that had, on the face of it, high social capital despite lower-than-average socioeconomic status and widespread damage from the disaster. It was therefore a good site at which to explore the power of social capital in a challenging postdisaster situation. Fine-grained analysis, however, suggests social capital is far from being a simply transferable resource, as the economic analogy of capital might imply. By studying social capital in communicative terms, looking for the "information and shared meaning that flows through social ties and is constructed by them" (Rojas et al., 2011, p. 690), we encountered not only a differentiation between bonding, bridging, and linking capital but a complex communicative landscape. We found face-to-face

communication valued as a way of getting things done among members of community networks. We found strongly shared narratives of the importance of community and of the needs of New Brighton within the wider city rebuild. We also found a communicative divide, bridged by only a few of the interviewees, between civic institutions and people in the suburb that restricted access to social capital. As contemporary sociologists of disaster predict (Chamlee-Wright, 2010; Tierney & Oliver-Smith, 2012), the symbolic dimension of recovery built up through shared understandings and stories and through the social learning that results from that talk loomed large.

One consequence of these findings was that we did not find useful the system-level analysis that accompanies some social capital theory. Kim and Ball-Rokeach's (2006) communication infrastructure theory holds that key community storytellers encourage a sense of collective efficacy among their neighbors, which helps people participate in civic activity. But in post-disaster New Brighton, it seems that the rich social capital built up among community members hit a rigid ceiling of information scarcity, loss of trust, and a paucity of other networks of information. The social learning of people in New Brighton is partly a shared knowledge of their marginalization and the need for them to draw together to solve their own problems. We would therefore place a critical frame around our analysis of the way community arose in postdisaster communication as a resource for self-help. It seems to have been, in part, a site where people came to terms with that experience of marginalization.

That is not to disparage the value placed on local-level connections and face-to-face interactions. The trusted sources for most of our interviewees were other individuals who shared their experiences or with whom they had established one-on-one relationships. One talked of a budgeting service his organization ran as working because of its informality and its emphasis on fighting alongside people (S). Another community leader mentioned face-to-face communication and word-of-mouth networks as being important for similar reasons of fostering solidarity, even safety, in a broken city. When asked where they went to find information, most mentioned individuals within the community or in networks that were established interpersonally, and not institutional sources or large organizations. Things made sense to people, one community leader explained, at the community level, and so public meetings where issues are related to local experiences were much more powerful ways to build knowledge than mass-mediated reports (C). The people we interviewed embraced the view that authentic and legitimate knowledge is built from below.

But we did not find any natural progression from these horizontal forms of social capital to vertical forms. This runs counter to the expectations of scholars such as Putnam (2000). For him, civic engagement and democratic life are built out of local connections. That is, social connectedness and other horizontal networks should provide people with access to information, support, and means to mobilize. We certainly found that the many local-level initiatives and support mechanisms and the shared narratives of community we heard—evidence of the high social capital the city council identifies in the suburb—helped to build some confidence, security, and community resilience among people in New Brighton. As Rojas, Shah, and Friedland (2011) also argue, it is clear that political discussion within a community builds social capital. Through that talk, many of the people in New Brighton expressed a strong commitment to other people in the community; for some, this was an expression of their religious faith, for others the pleasure to be found in doing things together. But by looking at communicative practices, we found the dichotomy

that always exists between people's lifeworlds and the public world to be strong. We heard from only a few people that interpersonal connections—whether face-to-face community or virtual community online—acted as a springboard to taking part in the city's rebuild. Elsewhere, the norms of civic engagement that Putnam (2000) associates with community connectedness were regarded as either not present or as having been breached.

As a result, we read the community action partly in political terms as an expression of resistance to disempowerment and uncertainty. Sharing information about gardening or about how to act if there was another disaster is empowering partly because it builds knowledge against a context of bad official communication. The TC3 Facebook group is an expression of resistance, contesting the way information about the state of land has been centralized and closed down. "It's a place to start," one described these kinds of local initiatives, but it was small scale. Bottom-up recovery should not, then, be romanticized—it was here a place of resistance and frustration that grew strong partly when civic structures were not working as well as they should—and should not be assumed to connect with state and public spaces. Certainly, the institutions of public life, including state institutions acting in the public trust or the news media, were weakly connected to the lived realities of people in New Brighton.

Conclusion

The study was small in scale, and no easy generalizations can be made. But the communicative barriers that we repeatedly heard about confirm the large responsibility of top-level organizations in postdisaster situations to actively foster civic engagement and construct connections between strong communities and the power gathered in institutions. This is not a matter simply of the flow of information down to people. Nor is it a matter of giving communities centrality and agency in recovery. Although both of these aspects are important, this study of the resources people have to recover from disaster in New Brighton suggests that the social capital accessed through each of those forms was limited without a further dimension. Some sense of civic connection, a shared space in which the city was collectively reimagined and in which shared citywide narratives could develop, appears missing.

A communicative lens on social capital points to the importance of access to forms of social capital that allow people to feel part of the city. The study reinforces Aldrich's (2010) argument, therefore, that the self-identification of people as citizens (and, we would emphasize, citizens in the widest sense of individuals experiencing collective sovereignty over their lives) rather than victims is a key element to recovery from disaster. In practical terms, that means the emphasis on community initiatives being complemented by an emphasis on civic institutions such as elected councils. The tendency for governments to respond to disaster by setting up extraordinary structures with wide-ranging powers over response and recovery—such as CERA in New Zealand—risks weakening established connections of trust and downward-facing structures of accountability that contribute to that kind of citizenship. The study also reinforces arguments for paying particular attention to the communication architecture during recovery and rebuild (Macnamara, 2015) so that institutions spend time in activities such as listening and responding that foster trust.

References

- Aldrich, D. P. (2010). Fixing recovery: Social capital in post-crisis resilience. *Journal of Homeland Security*, 6, 1–10. Retrieved from <http://www.degruyter.com/view/j/jhsem>
- Aldrich, D. P. (2012). *Building resilience: Social capital in post-disaster recovery*. Chicago, IL: University of Chicago Press.
- Auf der Heide, E. (1989). *Disaster response: Principles and preparation and coordination*. St Louis, MO: CV Mosby.
- Booker, J. (2012, March 29). Christchurch quake third most expensive disaster ever: Insurer. *New Zealand Herald*. Retrieved from http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10795342
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York, NY: Greenwood.
- Canterbury Earthquake Recovery Agency/Nielsen. (2013, November). *The CERA wellbeing survey September 2013* [Report]. Christchurch, New Zealand: Author. Retrieved from <http://cera.govt.nz/sites/default/files/common/cera-wellbeing-survey-september-2013-report-20140318.pdf>
- Canterbury Earthquake Recovery Agency/Nielsen. (2014, April). *The CERA wellbeing survey April 2014* [Report]. Christchurch, New Zealand: Author. Retrieved from <http://cera.govt.nz/sites/default/files/common/cera-wellbeing-survey-april-2014-report.pdf>
- Chamlee-Wright, E. (2010). *The cultural and political economy of recovery: Social learning in a post-disaster environment*. Abingdon, UK: Routledge.
- Chamlee-Wright, E., & Storr, V. H. (2011). Social capital as collective narratives and post-disaster community recovery. *Sociological Review*, 59, 266–282. doi:10.1111/j.1467-954X.2011.02008.x
- Chandra, A., Acosta, J., Stern, S., Uscher-Pines, L., Williams, M. V., Yeung, D., Garnett, J., & Meredith, L. S. (2011). *Building community resilience to disasters: A way forward to enhance national health security* [Technical report]. Santa Monica, CA: RAND Corporation.
- Christchurch City Council. (2011, August/September). *Community profile: New Brighton/South Shore*. Community Support Unit. Christchurch, New Zealand: Author. Retrieved from <http://resources.ccc.govt.nz/files/cityleisure/statsfacts/statistics/communityprofiles/2011/burwoodpegasuscommunityprofilenewbrightonsouthshore-poster.pdf>
- Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.

Donnell, H. (2011, March 3). Christchurch's eastern suburbs "neglected": Brownlee. *New Zealand Herald*. Retrieved from http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10709887

Drabek, T. E., & McEntire, D. A. (2003). Emergent phenomena and the sociology of disaster: Lessons, trends and opportunities from the research literature. *Disaster Prevention and Management*, 12, 97–112. doi:10.1108/09653560310474214

English, B. (2013, May 16). *Budget speech: Supporting the rebuild of Christchurch*. The Treasury. Wellington, New Zealand: New Zealand Government. Retrieved from <http://www.treasury.govt.nz/budget/2013/speech/b13-speech.pdf>

Gates, C. (2012, November 21). Bare bums to highlight suburb's "neglect." *The Press*. Retrieved from <http://www.stuff.co.nz/the-press/news/christchurch-earthquake-2011/7979047/Bare-bums-to-highlight-suburbs-neglect>

Hayward, B. (2012, March 30). Canterbury's political quake. *The Press*, 7.

Insurance Council of New Zealand. (2014, September). Insurer-managed Canterbury EQ residential rebuild & repair programme gathers pace. *e-Newsletter*. Retrieved from <http://www.icnz.org.nz/icnz-e-newsletter-september-2014/>

InsuranceWatch. (2014, April 7). Quake rebuild insurance woes relentless [Press release]. Retrieved from <http://insurancewatch.org.nz/docs/Press Release - April 7 2014 -Quake Rebuild Insurance Woes Relentless.pdf>

Jordan, E., & Javernick-Will, A. (2013). Indicators of community recovery: Content analysis and Delphi approach. *Natural Hazards Review*, 4, 21–28. doi:10.1061/(ASCE)NH.1527-6996.0000087

Kim, Y. C., & Ball-Rokeach, S. J. (2006). Civic engagement from a communication infrastructure perspective. *Communication Theory*, 16, 173–197. doi:10.1111/j.1468-2885.2006.00267.x

Lin, N., & Erickson, B. H. (2008). Theory, measurement, and the research enterprise on social capital. In N. Lin & B. H. Erickson (Eds.), *Social capital: An international research program* (pp. 1–24). Oxford, UK: Oxford University Press.

Lindell, M. (2013). Disaster studies. *Current Sociology*, 61, 797–825. doi:10.1177/0011392113484456

Macnamara, J. (2015). The work and "architecture of listening": Requisites for ethical organisation-public communication. *Ethical Space*, 12(2), 29–37.

Maras, S. (2003). Communication and social capital theory: A preliminary discussion. *Southern Review*, 36, 44–63. Retrieved from <http://search.informit.com.au/documentSummary;dn=811135597749601;res=IELAPA>

- Matheson, D. (2014). Tools in their pockets: How personal media were used during the Christchurch earthquakes. In E. Thorsen & S. Allan (Eds.), *Citizen journalism: Global perspectives* (Vol. 2, pp. 99–112). New York, NY: Peter Lang.
- McClean, I., Oughton, D., Ellis, S., Wakelin, B., & Rubin, C. B. (2012). *Review of the Civil Defence emergency management response to the 22 February Christchurch earthquake*. Wellington, New Zealand: New Zealand Ministry of Civil Defence and Emergency Management.
- Morgan, S. L., & Sørensen, A. B. (1999). Parental networks, social closure, and mathematics learning: A test of Coleman's social capital explanation of school effects. *American Sociological Review*, 64, 661–681. doi:10.2307/2657368
- Nakagawa, Y., & Shaw, R. (2004). Social capital: A missing link to disaster recovery. *International Journal of Mass Emergencies and Disasters*, 22, 5–34. Retrieved from <http://www.ijmed.org/articles/235/>
- O'Callaghan, J. (2013, August 18). Is Christchurch still great for families? *The Press*. Retrieved from <http://www.stuff.co.nz/the-press/christchurch-life/9054104/Is-Christchurch-still-great-for-families>
- Palen, L., Anderson, K. M., Mark, G., Martin, J., Sicker, D., Palmer, M., & Grunwald, D. (2010). A vision for technology-mediated support for public participation and assistance in mass emergencies and disasters. *Proceedings of ACM-BSC visions of computer science*. Retrieved from <http://www.bcs.org/content/conWebDoc/35016>
- Pechta, L. A., Brandenburg, D. C., & Seeger, M. W. (2010). Understanding the dynamics of emergency communication: Propositions for a four-channel model. *Journal of Homeland Security and Emergency Management*, 7, 1–18. doi:10.2202/1547-7355.1671
- Procopio, C. H., & Procopio, S. T. (2007). Do you know what it means to miss New Orleans? Internet communication, geographic community, and social capital in crisis. *Journal of Applied Communication Research*, 35, 67–87. doi:10.1080/00909880601065722
- Putnam, R. (2000). *Bowling alone*. New York, NY: Simon & Schuster.
- Rojas, H., Shah, D. V., & Friedland, L. A. (2011). A communicative approach to social capital. *Journal of Communication*, 61, 689–712. doi:10.1111/j.1460-2466.2011.01571.x
- Rui, J. R., Covert, J. M., Stefanone, M. A., & Mukherjee, T. (2014). A communicative multiplexity approach to social capital: On- and offline communication and self-esteem. *Social Science Computer Review*, 32, 1–21. doi:10.1177/0894439314552803

- Scanlon, S. (2014). *Quake aftermath: Christchurch journalists' collective trauma experience and the implications for their reporting* (PhD thesis). University of Canterbury, Christchurch, New Zealand. Retrieved from <http://ir.canterbury.ac.nz/handle/10092/9647>
- Stallings, R., & Quarantelli, E. (1985). Emergent citizen groups and emergency management. *Public Administration Review*, 45, 93–100. Retrieved from <http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291540-6210>
- Statistics New Zealand. (n.d.). 2013 Census map: QuickStats about a place [Interactive map]. Retrieved from <http://www.stats.govt.nz/StatsMaps/Home/Maps/2013-census-quickstats-about-a-place-map.aspx>
- Steeman, M. (2014, September 4). Christchurch rebuild just 10pc complete. *The Press*. Retrieved from <http://www.stuff.co.nz/business/industries/10457378/Christchurch-rebuild-just-10pc-complete>
- Storr, V. H., & Haefele-Balch, S. (2012). Post-disaster community recovery in heterogeneous, loosely connected communities. *Review of Social Economy*, 70, 295–314. doi:10.1080/00346764.2012.662786.
- Tatsuki, S., Hayashi, H., Yamori, K., Noda, T., Tamura, K., & Kimura, R. (2005, January). *Long-term life recovery processes of the survivors of the 1995 Kobe earthquake: Causal modeling analysis of the Hyogo Prefecture life recovery panel survey data*. Paper presented at the first International Conference on Urban Disaster Reduction, Kobe, Japan.
- Tierney, K., & Oliver-Smith, A. (2012). Social dimensions of disaster recovery. *International Journal of Mass Emergencies and Disasters*, 30, 123–146.
- Tonkin & Taylor. (2013, November). *Effects of sea level rise for Christchurch City* (Report prepared for Christchurch City Council). Retrieved from <http://www.rebuildchristchurch.co.nz/i/46e42c98aee3647b.pdf>
- Williams, K., & Durrance, J. C. (2008). Social networks and social capital: Rethinking theory in community informatics. *Journal of Community Informatics*, 4(3). Retrieved from <http://www.ci-journal.net/index.php/ciej/article/view/465/430>
- Woolcock, M. (2000). Why should we care about social capital? *Canberra Bulletin of Public Administration*, 98, 17–19. Retrieved from <https://www.act.ipaa.org.au/Public-Administration-Today/public-administration-today.html>